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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,269	11/07/2001	Yoshinori Tajima	08228/018001	2345

22511 7590 11/08/2002

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HOUSTON, TX 77010

EXAMINER

SPITZER, ROBERT H

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 11/08/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,269

Applicant(s)

Yoshinori Tajima et al.

Examiner

Robert H. Spitzer

Art Unit

1724



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3 6) ☐ Other: _____

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DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1724.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,10 and 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either EP reference number 0,948,988A or Wambach et al. (4,254,062), as applied in the EPO Search Report.
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-8 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over either EPO reference number 0,948,988A or Wambach et al. ('062) in view of either EPO reference number 0,924,485 or 0,854,335 or 0,500,040. The claims differ from the disclosure of either EPO reference number 0,948,988A or Wambach et al. ('062) in the source of the mixture

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gas being a semiconductor processing device or process. All three EPO references, 0,924,485, 0,854,335 and 0,500,040 show that gases from such a process can be purified before it is again reused. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to utilize the process and apparatus of either EPO reference number 0,948,988A or Wambach et al. ('062) for a feed gas which includes the components from a semiconductor processing plant or device, in view of the showing of either EPO reference number 0,924,485 or 0,854,335 or 0,500,040, so that the components can be recycled to the process and so that pollutant gases are not discharged into the atmosphere.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over either EPO reference number 0,948,988A or Wambach et al. ('062) in view of WO 99/33540. The claim differs from the disclosure of either EPO reference number 0,948,988A or Wambach et al. ('062) in the chromatographic separation being with a plurality of columns. WO 99/33540 shows that such a plurality of columns can be utilized for chromatographic separation when there are multiple components within the feed gas mixture which need to be separated. It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to structure the separation stage of either EPO 0,948,988A or Wambach et al. ('062) to include a plurality of chromatographic columns in the separation stage or step, in view of the showing of WO 99/33540, so that multiple components can be removed from the feed gas stream.

7. The remaining references listed on the PTO-1449 and those cited on the PTO-892 show art of interest.

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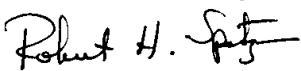
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Spitzer whose telephone number is (703) 308-3794. The examiner can normally be reached on Monday-Thursday from 5:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Simmons, can be reached on (703) 308-1972. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Robert H. Spitzer

October 3, 2002


ROBERT H. SPITZER
PRIMARY EXAMINER
T.C. 1700
October 3, 2002